Dalton
UTILITIES

November 24, 2009

Ms. Gail Mitchell
Clean Water Enforcement Branch
Water Protection Division
U.S. Environmental Protection Agency, Region 4
61 Forsyth Street, SW
Atlanta, GA 30303-8960

Re: Compost Use Review Report Results

Dear Ms. Mitchell,

In accordance with the Information Request pursuant to Section 308 of the Clean Water Act dated October 6, 2009, Dalton Utilities is submitting the final analytical results received to date for the private drinking water wells in the vicinity where compost was utilized as a soil amendment. The results are contained in Attachment A and are provided herein as a bound report titled Test America Laboratories, Inc. Analytical Report on Perfluorocarbon (PFC) Analysis Lot # D9J030134 which contains 292 pages.

The analytical results labeled as G Hill in Attachment A correspond to a private drinking water wells located at 1723 Pleasant Hill Road, Ranger, Georgia.

As stipulated in the aforementioned 308 letter, Dalton Utilities will provide additional results within five days of receiving the final analytical reports.

If you have any questions, please contact me at 706-529-1091 or dcope@dutil.com.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false

information, including the possibility of fine and imprisonment for knowing violations.

Sincerely,

Don Cope
President & CEO

Attachment

C: Dr. Carol Couch, Georgia Environmental Protection Division (cover letter only)
Dr. Marlin Gottschalk, Sustainability Division Georgia Department of Natural Resources (cover letter only)
Dr. Bert Langley, Georgia Environmental Protection Division (cover letter only)
Lee A. DeHihns, Esq.

Case Narrative
D9J030134

TestAmerica Denver utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameters listed on the methods summary page in accordance with the methods indicated. Dilution factors and footnotes are provided on each datasheet to assist in the interpretation of the results.

The results relate only to the samples in this report and meet all requirements of NELAC. All data have been reviewed for compliance with the laboratory QA/QC plan and have found to be compliant with laboratory protocols with any exceptions noted below.

Please note that Non-Detect (ND) results have been evaluated down to the Method Detection Limit (MDL) and should be considered ND at the MDL. Unless otherwise noted, results for solids have been dry weight corrected.

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Sample Arrival and Receipt

The following report contains the analytical results for one water sample received at TestAmerica Denver on October 3, 2009, according to documented sample acceptance procedures. The sample was received in good condition at a temperature of 3.1°C.

The sample collection time was not listed on chain-of-custody 115753 or on the container label for sample G Hill. The client was notified on October 5, 2009, and the client informed the laboratory the sample was collected at 05:00.

No other anomalies were encountered during sample receipt.

Standards

Analytical standards were prepared using commercially available certified solutions containing all compounds of interest.

The mass labeled compounds 13C4 PFBA, 13C2 PFHxA, 18O2 PFHxS, 13C4 PFOA, 13C4 PFOS, 13C5 PFNA, 13C2 PFDA, 13C2 PFUnA, 13C2 PFDoA, and D3 MeFOSA were introduced at the extraction step and were used for internal standards for the quantitation of the target compounds.

Sample Extraction and Analysis

The samples presented in this report were extracted for the target analytes by TestAmerica Denver's Standard Operating Procedure (SOP) DV-OP-0019 and analyzed for the target analytes by TestAmerica Denver's SOP DV-LC-0012.

Method QC Samples

The Method Blank is processed reagent water spiked with internal standard and prepared with each batch of 20 samples of the same matrix. The method blanks were non-detect at the reporting limits for the target analytes.

Each batch is prepared with low and mid level Laboratory Control Samples (LCS). The LCS recoveries for both levels were within established control limits, with the exception of the items noted in section Analytical Comments.

Analytical Comments

The Standard Operating Procedure (SOP) was altered slightly in the sample preparation for FOSA. Sodium hydroxide was added to all nineteen samples to obtain a pH of 14 instead of the SOP required <2. Also, a Strata-XL 100u Polymeric Reversed Phase cartridge was used for the extraction. The basic pH and Strata-XL cartridge are generating better internal standard recoveries for MeFOSA.

Due to a low internal standard recovery in the low-level LCS in QC batch 9279461, sample G Hill was re-extracted out of the laboratory prescribed hold time and reanalyzed in QC batch 9295579. Both batches are included in this report. Please note the sample results should be considered estimated.

The Method Blank associated with QC batch 9278425 exhibited internal standard recoveries outside the QC control limits for 13C2 PFUnA and 13C2 PFDoA. The mid-level LCS/LCSD analyses associated with QC batch 9278425 exhibited an internal standard recovery outside the QC control limits for 13C2 PFDoA. The associated sample internal standards are 100% in control and there were no detectable concentrations in the sample. This is an indication that laboratory contamination is not an issue; therefore, corrective action is deemed unnecessary.

The low-level LCS analyses associated with QC batch 9278425 exhibited a spike compound recovery and an internal standard recovery outside the QC control limits for Perfluorodecane sulfonate (PFDS) and 13C2 PFDoA. The associated sample internal standards are 100% in control and there were no detectable concentrations in the sample. This is an indication that laboratory contamination is not an issue; therefore, corrective action is deemed unnecessary. Please note PFDS is not a target compound for this project.

Due to a limitation in the LIMS system, the low-level LCS associated with QC batch 9278425 reported the percent recovery for Perfluorotridecanoic Acid (PFTriA) as 0.0%. PFTriA was recovered within the control limits (50-150%) at 60%. As the compound was detected below the Method Detection Limit (MDL) of 0.020 ug/L, the system reports the percent recoveries as 0.0%.

The low-level LCS associated with QC batch 9279461 exhibited an internal standard recovery outside the control limits for MeFOSA. The client was notified of this anomaly on October 21, 2009, and instructed the laboratory to re-extract/reanalyze sample G Hill. Upon re-extraction and reanalysis in QC batch 9295579, the internal standard recovery was 100% in control. Both the original and reanalysis data have been provided, as re-extraction was unavoidably performed outside the laboratory recommended sample holding time.

The method required MS/MSD could not be performed for PFC QC batch 9278425, due to insufficient sample volume. Method precision and accuracy have been verified by the acceptable low-level LCS and mid-level LCS/LCSD analyses data.

The method required MS/MSD could not be performed for FOSA QC batches 9279461 and 9295579, due to insufficient sample volume. Method precision and accuracy have been verified by the acceptable low-level LCS and mid-level LCS/LCSD analyses data.

No other anomalies were observed.

EXECUTIVE SUMMARY - Detection Highlights

D9J030134

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
NO DETECTABLE PARAMETERS				

METHODS SUMMARY

D9J030134

PARAMETER	ANALYTICAL METHOD	PREPARATION METHOD
LC/MS/MS PFCs	DEN -LC-0012	SW846 FOSA spec

References:

DEN Severn Trent Laboratores, Denver, Facility Standard Operating Procedure.

METHOD / ANALYST SUMMARY

D9J030134

ANALYTICAL METHOD	ANALYST	ANALYST ID
DEN -LC-0012	Jacqueline Bonnett	003601

References:

DEN Severn Trent Laboratores, Denver, Facility Standard Operating Procedure.

SAMPLE SUMMARY

D9J030134

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
LL0EM	001	[redacted]	10/01/09	05:00

Ex 6

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

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Client Sample ID: G HILL

HPLC

Lot-Sample #...: D9J030134-001 **Work Order #...:** LL0EM1AA **Matrix.....:** WATER
Date Sampled...: 10/01/09 05:00 **Date Received..:** 10/03/09
Prep Date.....: 10/05/09 **Analysis Date..:** 10/17/09
Prep Batch #...: 9278425 **Analysis Time..:** 05:09
Dilution Factor: 1

Method.....: DEN -LC-0012

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Perfluorooctanoic Acid	ND	0.020	ug/L	0.0098
Perfluorooctanesulfonate	ND	0.020	ug/L	0.013
Perfluorobutanoic acid (PFBA)	ND	0.020	ug/L	0.0098
Perfluoropentanoic acid (PFPA)	ND	0.030	ug/L	0.011
Perfluorohexanoic acid (PFHxA)	ND	0.020	ug/L	0.0029
Perfluoroheptanoic acid (PFHpA)	ND	0.020	ug/L	0.013
Perfluorononanoic acid (PFNA)	ND	0.020	ug/L	0.017
Perfluorodecanoic acid (PFDA)	ND	0.020	ug/L	0.0078
Perfluoroundecanoic acid (PFUnA)	ND	0.020	ug/L	0.0069
Perfluorododecanoic acid (PFDoA)	ND	0.020	ug/L	0.015
Perfluorotridecanoic acid (PFTriA)	ND	0.020	ug/L	0.018
Perfluorotetradecanoic acid (PFTeA)	ND	0.020	ug/L	0.015
Perfluorobutane sulfonate (PFBS)	ND	0.020	ug/L	0.0082
Perfluorohexane sulfonate (PFHxS)	ND	0.030	ug/L	0.0070

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C4 PFOA	101	(50 - 200)
13C4 PFOS	63	(50 - 200)
13C4 PFBA	86	(50 - 200)
13C2 PFHxA	94	(50 - 200)
18O2 PFHxS	99	(50 - 200)
13C5 PFNA	98	(50 - 200)
13C2 PFDA	61	(50 - 200)
13C2 PFUnA	50	(50 - 200)
13C2 PFDoA	54	(50 - 200)

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Client Sample ID: G HILL

HPLC

Lot-Sample #...:	D9J030134-001	**Work Order #...:**	LL0EM1AC	**Matrix.....:**	WATER
Date Sampled...:	10/01/09 05:00	**Date Received..:**	10/03/09		
Prep Date.....:	10/06/09	**Analysis Date..:**	10/17/09		
Prep Batch #...:	9279461	**Analysis Time..:**	18:15		
Dilution Factor:	1				
		Method.....:	DEN -LC-0012		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Perfluorooctane sulfonamide (FOSA)	ND	0.050	ug/L	0.0057

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
MeFOSA	60	(50 - 200)

Dalton Utilities

Client Sample ID: G HILL

HPLC

Lot-Sample #...: D9J030134-001	**Work Order #...:** LL0EM2AC	**Matrix.....:** WATER	
Date Sampled...: 10/01/09 05:00	**Date Received..:** 10/03/09		
Prep Date.....: 10/22/09	**Analysis Date..:** 11/01/09		
Prep Batch #...: 9295579	**Analysis Time..:** 07:48		
Dilution Factor: 1			
	Method.....: DEN -LC-0012		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Perfluorooctane sulfonamide (FOSA)	ND	0.050	ug/L	0.0057

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
MeFOSA	61	(50 - 200)